



NEXT.assembly

# x-light truck

The headlamp measuring and setting system for commercial vehicles

With the experience of more than 620 installed manual, semi-automatic and fully automatic headlamp measuring and setting systems in the end-of-line area of automotive plants, Dürr Assembly Products develops and sells systems adapted to the needs of headlamp adjustment in commercial vehicles.

In addition to portal systems for vans and minibuses, Dürr also offers ground-guided systems, especially for trucks and buses with up to 10 t axle load.

The adjustment and checking of driver assistance systems based on infrared distance sensors and radar systems with auxiliary mirrors can also be carried out with headlamp measuring and setting system.

## CUSTOMER BENEFITS



Scalable test stand, tailored to the customer's requirements

Operator-independent analysis and automated documentation of the measuring values

Comprehensive self-diagnosis and fault detection

Considering chassis and car body parameters determined in the wheel alignment stand

Traceable calibration of the test stand as a whole with calibration gauge

# Technical data

## x-light truck



Light measuring device with Smart Ergo Drive

### SETTING TOOLS

The new generation of Smart Ergo Drive adjustment tools sets new standards in terms of ergonomics and weight.

The optionally available semi-automatic tools were developed by Dürr especially for headlamp and sensor adjustment according to the torque and speed characteristics. In addition to a rubberized grip area for perfect handling and LED lighting for illumination of the screw position, the tool is also equipped with a rotary encoder, which can be used to make highly precise adjustments with a preset rotary angle if required.

As a unique feature on the market, a built-in sensor can be used to check whether forces are exerted on the adjustment screw during the adjustment process. This ensures the quality of the adjustment process.

During the entire adjustment process, the headlamp light image is analysed by the camera system integrated in the light measuring device. The semi-automatic setting tools are controlled via decentralised control units and automatically deactivated when reaching nominal value.

### FLEXIBILITÄT

Thanks to their modular design and high flexibility, the adjustment stands offer the security of being able to meet future requirements without any problems. The powerful automation reduces production costs and ensures highly accurate, reproducible test and adjustment results at an ergonomic workstation.

The wheel geometry measuring system in the x-wheel truck *d* determines chassis and body parameters such as position of

vehicle as well as symmetry and driving axis (non-contact measurement) and transmits these parameters to the headlamp measuring and setting system for further processing.

### LIGHT MEASURING DEVICE X-LIGHT

- GigE camera technology with automated exposure control
- Storage of headlamp setting sequences for "off-line" analysis
- Extra wide Fresnel lens for measuring wide LED headlamp systems, special design for headlamp measurement
- Quick-change coupling for replacing the complete light measuring device
- Extra-large window below a rubberized storage surface
- Graved projection plate for check that can be folded down from the outside
- Nanoparticle-coated projection surface in the light measuring device for optimized analysis

### TECHNICAL DATA

x-light truck	
Measuring accuracy	< 0,1 % (3,43') Boundary condition: Light exit point on the headlamp is positioned in front of the centre of the lens
Max. clearance height gantry system	2,2 m
Max. axle load floor guide	10 t
Smart Ergo Drive	
Lightning	LED
Push-Down sensor	Process-safe storage of setting values
Position feedback	Digital encoder
Weight	590 g, without bits
Length	270 mm, without bits
Housing	Glass fibre reinforced plastic housing with rubberized grip area